

**Claims**

1. An affinity-chromatography assay system comprising with an immobilised component containing a bio-reagent and a flowable component containing a complimentary bio-reagent characterised in that the immobilised component is supported on a dip strip or planar surface and the flowable component is adapted to flow down the dip strip of high density.
- 10 2. An affinity-chromatography assay system according to claim 1 characterised in that the flowable component is of a higher density than the bulk solution.
3. An affinity-chromatography assay system according to claim 1 characterised in that immunoreagent is an antigen or antibody.
- 15 4. An affinity-chromatography assay system according to claim 1 characterised in that the flowable component is retained in a discrete volume.
5. An affinity-chromatography assay system according to claim 1 characterised in that the constituents of the flowable phase include a bio-polymer, a detergent and a buffer of optimal pH
- 20 6. An affinity-chromatography assay system according to claim 1 characterised in that the immobilised component possesses properties that result in attraction of the flowable component.
- 25 7. An affinity-chromatography assay system according to claim 6 characterised in that the attraction of the flowable component is achieved by a membrane.
- 30 8. An affinity-chromatography assay system according to claim 7 characterised in that the membrane is both hydrophobic and wettable.

9. An affinity-chromatography assay system according to claim 3 characterised in that the assay is either a competitive or non-competitive immunoassay using appropriate combinations of labelled antigen or labelled antibody with their complementary unlabelled counterparts.

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10. An affinity-chromatography assay system according to claim 9 characterised in that the label is a fluorescent or coloured label.

11. A method of conducting an affinity-chromatography assay which comprises 10 the use of an assay system according to claim 1.

12. A method according to claim 11 characterised in that the dipstrip that is stood substantially upright in a buffer solution.

15 13. A method according to claim 11 characterised in that the flowable component is dispensed adjacent the upper or lower part of the dipstrip.

14. A method according to claim 11 characterised in that the method comprises the separation of analyte mixtures.

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15. A method according to claim 11 characterised in that the components have different binding affinities for the surface.

25 16. A method according to claim 11 characterised in that the method comprises a single step assay.

17. A method according to claim 11 characterised in that the method comprises the separation of biological polymers.

30 18. A method according to claim 17 characterised in that the biological polymers are selected from proteins and DNA/RNA.

19. An affinity-chromatography assay system or a method substantially as described with reference to the accompanying examples.

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